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April 30, 2017

Licensing
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Re: March 2017 – Monthly Monitoring Report for Water Licence 2AM-DOH1323

This report is comprised of monitoring requirements as set out in Part J and Schedule J of water licence 2AM-DOH1323 Amendment 1, and additional requirements from INAC.

During the subject period of this report the focus of activities at Doris North was underground mining, construction, ore processing, water management and environmental compliance. Sampling locations monitored under this licence (seasonally or when facilities are operational) are provided in Figure 2 at the end of this report.

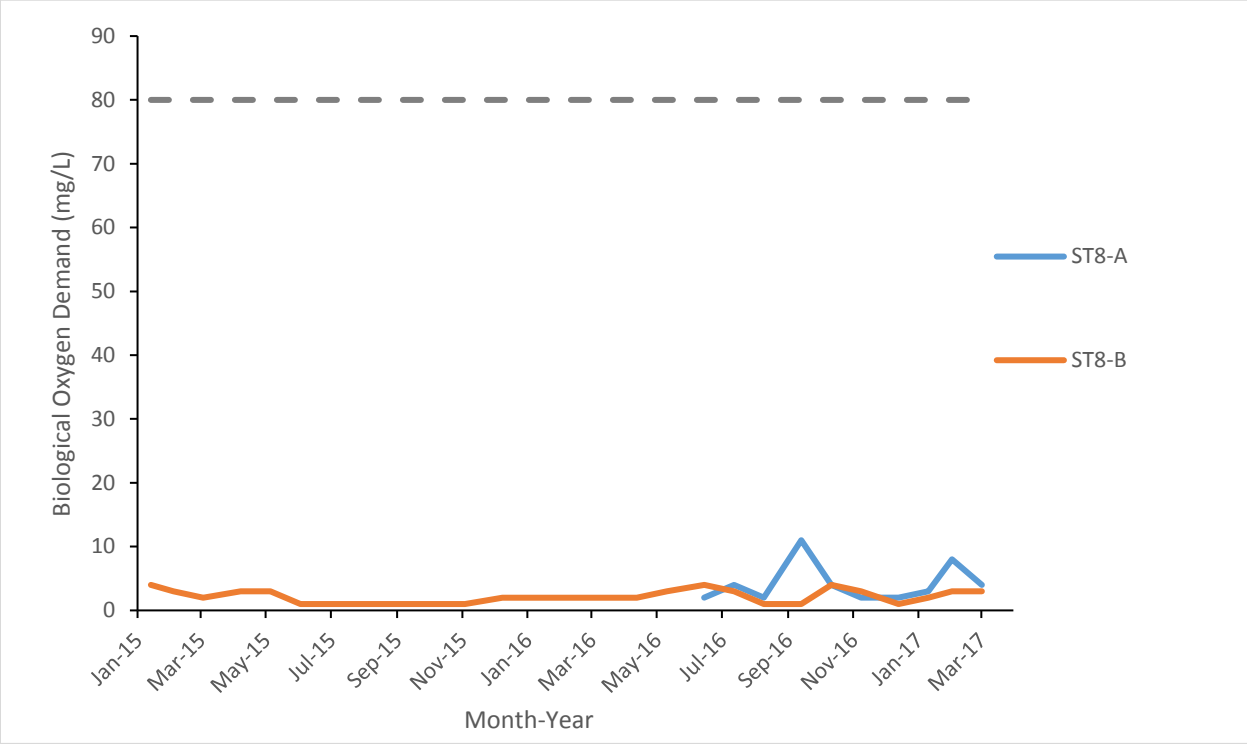
Site Wide Water Quality Monitoring Program (Part J Items 3, 8, and Schedule J)

Water quality sampling was conducted in March at monitoring stations identified in Schedule J of the licence (ST-1 through ST-13, TL-1 through TL-12). Water quality samples were not collected for monitoring stations that were inactive during the month being reported (e.g., facilities that had not yet been constructed, were frozen during the month, or were not operationally active). All parameters were compared to the applicable effluent quality limits with no exceedances observed. Results of this monitoring are attached to the report in Appendix A.

Elevated results were observed at ST8A for Total Suspended Solids (TSS), although they reported below the maximum allowable concentration for effluent discharge. Upon investigation, the elevated results were attributed to a loose flange on one of the membrane filters, which allowed some solids to circumvent the membrane. Subsequent sampling was conducted on the treated effluent after the repair to monitor treatment performance. Results reported a decrease in TSS results.

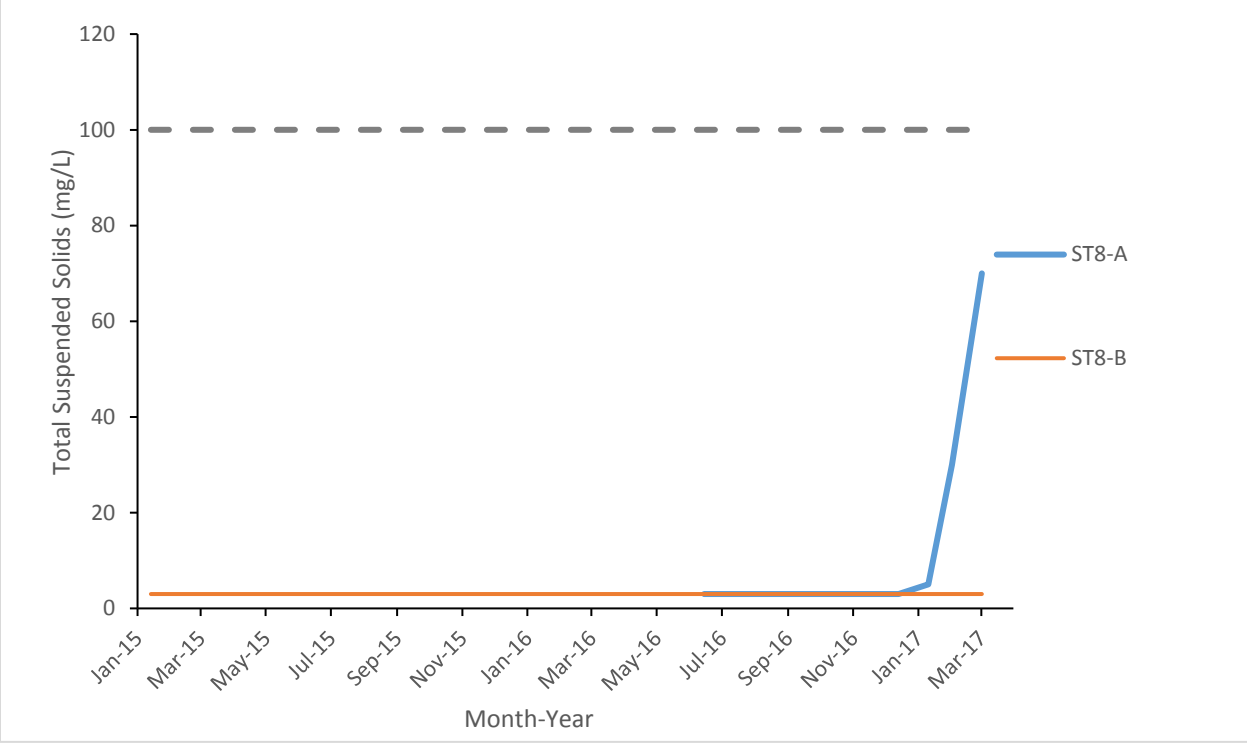
Figure 1 and 2 illustrates effluent quality characteristics for parameters of interest at select monitoring stations.

Figure 1. Biological Oxygen Demand Results Consistently Below Discharge Criteria for Wastewater Treatment Plant (ST-8A, ST8B)



Note: Maximum Average Concentration as per Part G Item 4(b).

Figure 2. Total Suspended Solids Results Consistently Below Discharge Criteria for Wastewater Treatment Plant (ST-8A, ST8B)



Note: Maximum Average Concentration as per Part G Item 4(b).

Flow and Volume Measurements (Part J Items 11, 12, and Schedule J)

Table 1. Effluent discharge, March 2017

Facility	Station Code	Discharge Volume (m^3)	Exceedances of Discharge Criteria	Discharge Location	Licence Reference
Sedimentation Pond	ST-1	0	0	Tailings Impoundment Area	Part G Item 22
Pollution Control Pond #1	ST-2	0	N/A	Tailings Impoundment Area	Part G Item 22
Landfill Sump	ST-3	0	0	Facility not constructed	Part G Item 24 (a, b, g)
Landfarm Sump	ST-4	0	0	Sedimentation Control Pond	Part G Item 24 (c, d, g)
Doris Tank Farm	ST-5	0	0	Sedimentation Control Pond	Part G Item 24 (e, f, g)
Rob Bay 5ML Tank Farm	ST-6a	0	0	Sedimentation Control Pond	Part G Item 24 (e, f, g)
Rob Bay Three 5ML Tank Farm	ST-6b	0	0	Sedimentation Control Pond	Part G Item 24 (e, f, g)
Wastewater Treatment Plant, Effluent	ST-8	839	0	Tundra Discharge 13W 432933 7559057	Part G Item 23(b-d)
Wastewater Treatment Plant, Sewage Cake	N/A	1.59	N/A	Tailings Impoundment Area	Part J Item 12 (f)
Reagent and Cyanide Storage Facility Sump	ST-11	0	0	Facility not constructed	Part G Item 23 (a)
Pollution Control Pond #2	ST-13	0	0	Tailings Impoundment Area	Part G Item 22
Mine Water Discharge	TL-12	0	N/A	Tailings Impoundment Area	Schedule J Table 2

Records of daily visual monitoring of discharged to tundra are maintained on file as per Part J Item 18.

Table 2. Discharge from TIA to Doris Creek, March 2017

Month	Number of days of discharge	Discharge Volume (m^3)	Exceedances of Discharge Criteria*
January	0	0	0
February	0	0	0
March	0	0	0
Annual Cumulative	**0**	**0**	**0**

* Discharge criteria outlined in Part G Items 29, 30, 31 and Part J Item 8.

A comparison of flows between TL-4 and TL-2 as per Part G Item 32 of the licence was not conducted as no water was discharged for the Tailings Impoundment Area to Doris Creek this month.

Table 3. Water usage, March 2017

Month	Windy Lake (ST-7A)				Doris Lake (ST-7)				Total Usage
	Domestic Water* (m^3)	Surface Exploration (m^3)	Industrial Usage** (m^3)	Dust Suppression (m^3)	Domestic Water* (m^3)	Surface Exploration (m^3)	Industrial Usage** (m^3)	Dust Suppression (m^3)	
January	849	0	15	0	0	0	0	0	864
February	801	0	0	0	0	0	0	0	801
March	925	1	0	0	0	0	32	0	958
Annual Total	2,575	1	15	0	0	0	32	0	2,623
Annual Allowance	**22,995**								**480,000**

* As permitted by water licences 2BE-HOP1222 and 2AM-DOH1323

** Includes industrial uses such as underground drilling, core processing, mill commissioning, concrete batching, etc.

March Ice Road Development: 16m^3. Cumulative total for Ice Road Development in 2017: 16m^3.

Table 4. Volume of Reclaim Water from the TIA, March 2017

Month	Reclaim Water (m^3) *
January	31,200
February	94,080
March	107,880
Annual Cumulative	**233,160**

* As per Part J Item 11(d)

Table 5. Waste Rock and Process Volumes, March 2017

Month	Waste Rock Stored Temporary Waste Rock Pile (tonnes)*	Waste Rock Returned Underground* (tonnes)	Quantity of Ore Processed** (tonnes)	Dry Tailings Placed in TIA** (tonnes)	Dry Cyanide Leach Tailings Placed Underground** (tonnes)	Volume of Void Space Underground (tonnes)	Volume of Void Space Underground (m^3)
January	24,811	0	0	0	0	-	-
February	22,584	1,392	6,174	5,927	247	-	-
March	23,917	5,060	11,177	10,970	207	624,707	223,110
Cumulative Total	470,279	6,452	19,371	17,497	454	624,707	223,110

* As per Part J Item 11(e, f)

** As per Part J Item 12.

Table 6. Doris Lake Water Level (ST-12), March 2017

Month	Minimum Water Level (masl)	Maximum Water Level (masl)	Mean Water Level (masl)	Water Level Change (masl)	Low Action Level Trigger (masl)
January	21.778	21.823	21.797	0.045	21.425
February	21.777	21.823	21.794	0.046	21.425
March	21.755	21.814	21.775	0.059	21.425

* Low action level trigger is relative to the average water level value (September 10-30, 2016) measured in Doris Lake. Low action level trigger (-0.42 m) outlined in Section 5.4 of the Doris Aquatic Effects Monitoring Plan, August 2016.

Summary of Assessments of Water Balance and Water Quality Model (Part G Item 34)

Average monthly water quality, hydrologic, and climatic monitoring data were collected while in operations during March. Data will contribute to the assessment of the water and load balance model, and will be compared to the predicted water quality and elevation within the TIA and will be reported in the annual report for 2017.

Thermal Monitoring (Part J Items 13 and 14)

Thermal monitoring undertaken as per Part J Items 13, 14 and Schedule J is reported in the annual Geotechnical Report.

Doris North Camp Diversion Berm Effectiveness (Part J Item 19(d))

Monitoring was not conducted on the Diversion Berm this month due to freezing conditions.

Incident Reporting

March 4, 2017 – Spill #17-069. On March 4, 2017, a spill of approximately 20L of ethylene glycol occurred on the Doris gravel airstrip. A front-end loader was removing snow from the airstrip when the radiator line running between the engine and radiator split open causing the release of coolant. Contaminated materials were removed and brought to the waste management area for sorting, packaging and ultimate removal from site to a registered remediation/disposal facility. TMAC internally reviewed the incident to identify corrective actions. All site equipment undergo scheduled preventative maintenance checks to ensure equipment is in satisfactory operating condition and to reduce the likelihood of spill occurrences. Spill response actions were as per TMAC's Spill Contingency Plan.

Should there be any questions regarding this monthly report, please contact John Roberts. John.Roberts@tmacresources.com.

Yours sincerely,

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cc. Eva Paul, Water Resources Officer, INAC

Figure 2. 2AM-DOH-1323 SNP Monitoring Locations